METHOD AND SYSTEM OF DATA TRANS-FER FOR EFFICIENT MEMORY UTILIZA-TION

Abstract

A method and system is provided to efficiently manage memory in a network device that receives packets of variable size. The memory is allocated into portions whereby each portion, comprising multiple equally-sized buffers, receives packets of a particular size. One portion is used for smaller packet sizes and another portion is for larger packet sizes, although other portions may be created. As packets are received at the network device, they are stored into the appropriate memory portion based on their size. The number of available buffers in each portion is monitored so that, when it falls below a threshold, buffers are reallocated to the other thereby increasing the overall memory efficiency.